WE CLAIM:

1.   A session initiated protocol (SIP) system for communications between a client and at least one networked appliance, comprising:

a user agent server (UAS) processor connected to said appliance so as to relay

5   commands to said appliance and receive status information from said appliance;

a user agent client (UAC) processor having the capacity to send to said UAS processor over a communications network SIP command messages intended for said appliance and to receive status information messages about said appliance from said UAS processor, said UAS processor translating received SIP commands into commands recognized

10   by the appliance and translating information provided by said appliance into SIP status messages for transmission over the communications network to said UAC processor; and

wherein the SIP command message includes a universal resource locator (URL) without location information otherwise specified in the SIP message and the command message has a generalized payload body with at least one of control and query instructions

15   specific to appliances.

2.   The session initiated protocol (SIP) system of claim 1, wherein the command message is a SIP message type that has the connection established phase removed.

3.   The session initiated protocol (SIP) system of claim 1, wherein the command message is a SIP DO type.

20   4.   The session initiated protocol (SIP) system of claim 1, wherein the command message payload is a device messaging protocol (DMP) MIME type.

5.   The session initiated protocol (SIP) system of claim 1, wherein when the command message is a SIP INVITE type, it includes a description of said appliance.

6.   The session initiated protocol (SIP) system of claim 1, wherein the appliance is

25   SIP enabled so that it can interpret signals directly from said UAS processor.

7.   The session initiated protocol (SIP) system of claim 1, further including an appliance controller located between said UAS processor and said appliance, said controller

translating commands from said UAS processor into signals which control operation of said appliance and translating status signals from said appliance into signals which can be translated by said UAS processor.

8.   A session initiated protocol (SIP) system for communications between a client and at least one of a plurality of networked appliance in one geographic region, comprising:

a user agent server (UAS) processor connected by a local area network to at least two of said appliances, said UAS processor having address mapping capability so as to direct commands to a selected at least one of said at least two appliances and receive status information from said at least one appliance;

a user agent client (UAC) processor having the capacity to send to said UAS processor over a communications network SIP command messages intended for said at least one appliance and to receive status information messages about said at least one appliance from said UAS processor, said UAS processor translating received SIP commands into commands recognized by said at least one appliance and translating information provided by said at least one appliance into SIP status messages for transmission over the communications network to said UAC processor; and

wherein the SIP command message includes a universal resource locator (URL) without location information otherwise specified in the SIP message, the command message identifies the appliance to which the message is addressed and the command message has a generalized payload body with at least one of control and query instructions specific to appliances.

9.   The session initiated protocol (SIP) system of claim 8, wherein the status information from each of the plurality of appliances identifies the appliance from which it originated, and the address mapping of the UAS processor includes an identification of the appliance in the SIP status messages sent to said UAC.

10.   The session initiated protocol (SIP) system of claim 8, wherein there are a plurality of locations, each with a plurality of networked appliances, and each location is serviced by a different UAS connected to the plurality of appliances in that location.

11.   The session initiated protocol (SIP) system of claim 10, wherein the signals from and to the UAC processor from the plurality of UAS processors pass through at least one proxy server.

12.   The session initiated protocol (SIP) system of claim 1,

wherein there are a plurality of geographic locations, each with a plurality of networked appliances;

wherein there are a plurality of UAS processors each servicing a separate one of said locations and being connected to the plurality of appliance in that location, the networked appliances at a location being connected only to the associated UAS processor and not to each other;

wherein the UAS processors do not have address mapping capability for handling messages to and from the appliances; and

further including at least one proxy server connected to least two of said UAS processors, said proxy server having address mapping capability to direct messages through the appropriate UAS processor to the appliance to which they are addressed.

13.   The session initiated protocol (SIP) system of claim 1 further utilizing SIP INVITE, SUBSCRIBE and NOTIFY message types as identified for Instant Messaging.

14.   The session initiated protocol (SIP) system of claim 13, further including SIP REGISTER message type.

15.   The session initiated protocol (SIP) system of claim 14 wherein the registration information is encrypted.

16.   The session initiated protocol (SIP) system of claim 1 wherein command messages are authenticated.

17.   The session initiated protocol (SIP) system of claim 16 wherein the authentication is by means of a check for repeated messages by comparing one of the Timestamp: and Cseq: fields of the message against previously stored messages.

18.   The session initiated protocol (SIP) system of claim 16 wherein the authentication is by means of a comparison of the Timestamp field to the current system time.

19.   The session initiated protocol (SIP) system of claim 1 wherein command messages are encrypted.

20.   The session initiated protocol (SIP) system of claim 19 wherein command messages are encrypted with a public key.

21.   The session initiated protocol (SIP) system of claim 19 wherein command messages are encrypted with one of a private key and password.

22.   The session initiated protocol (SIP) system of claim 1 wherein command messages have the portion of their URL to the left of the @ encrypted.

23.   A method for communicating between a client and at least one networked appliance, comprising the steps of:

forming at least one SIP command message wherein the SIP command message includes a universal resource locator (URL) without location information otherwise specified in the SIP message and a generalized payload body with at least one of control and query instructions specific to appliances;

sending the SIP command messages to a user agent server (UAS) processor associated with said appliance over a communications network by means of a user agent client (UAC) processor;

receiving at the UAS processor the command message intended for said appliance;

translating the received SIP command into instructions recognized by the appliance; and

sending the instructions to the appliance.

24.   A method for communicating between a client and at least one networked appliance as set forth in claim 23, wherein the command message is a query and further comprising the steps of:

      receiving at the UAS processor status information from the appliance in

5   response to a command message query;

      translating the status information into a SIP protocol status message;

      transmitting the protocol status message over the communications network to said UAC processor; and

      displaying the status at the UAC processor.

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25.   A method for communicating between a client and at least one networked appliance as set forth in claim 23, wherein the sending and transmitting steps occur via communication through at least one proxy server.

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